

# Diagnosing Severe AS: Echo Lab QI Opportunities

## Phase 1: Model Share

Ronald Reagan UCLA Medical Center- Los Angeles, CA

### Background & Rationale

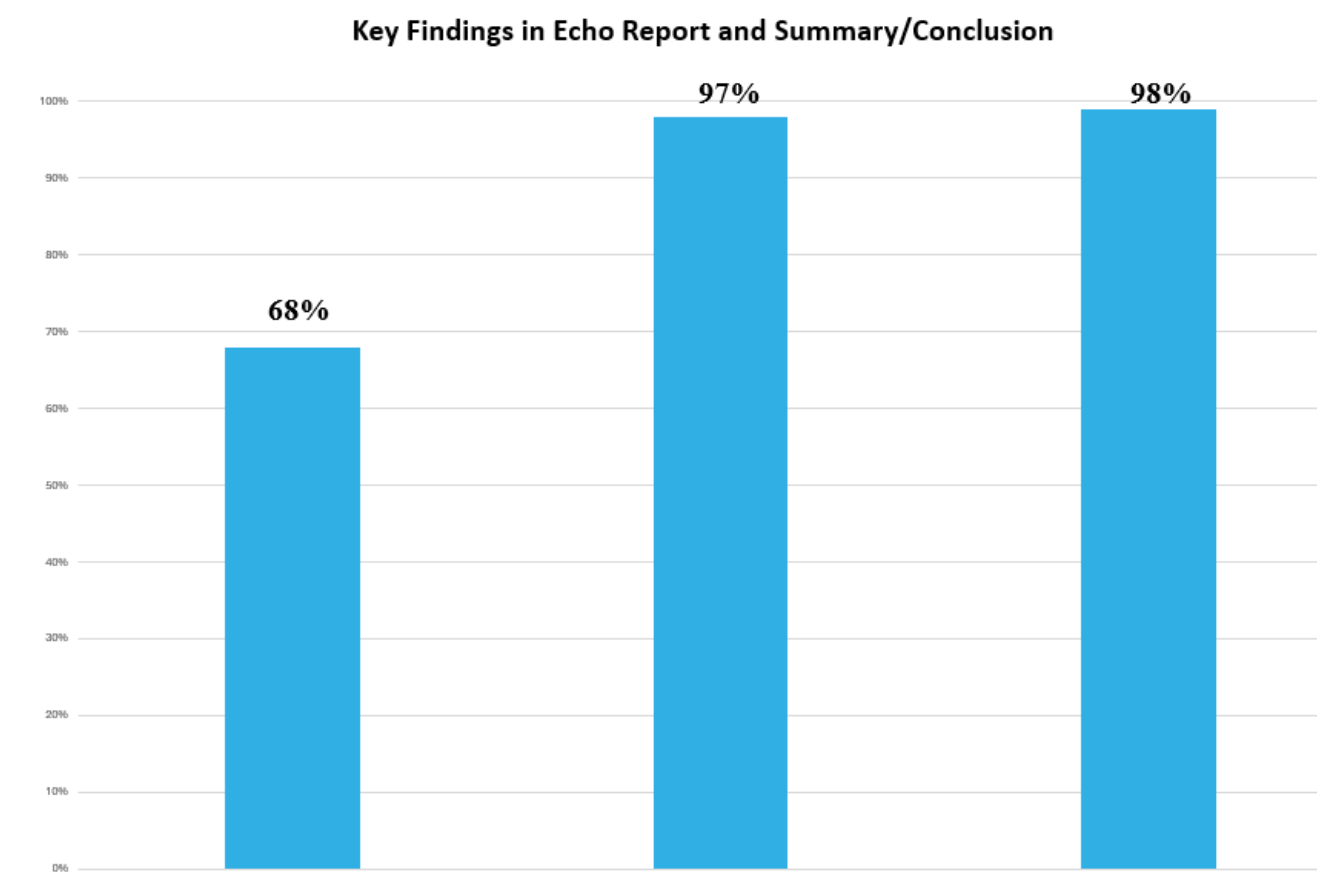
- 16 ULCA Satellite Cardiology Clinics feed referrals to the UCLA Heart Team located at the main campus in Westwood. All TAVR procedures (approximately 160-170 per year) are done at one location - Ronald Reagan UCLA Med. Ctr.
- Echos are performed at each of the 16 satellite clinics by over 51 different sonographers, and the Echos are read by over 40 different Cardiologists.
- Despite Echo report templates, many Aortic Valve hemodynamic measurements were consistently missing on reports, such as Stroke Volume Index, which can be crucial to identifying severe, low flow, low gradient Aortic Stenosis (AS).
- Missing metrics on Echo reports can lead to vague or missed diagnosis of Severe AS, delays in referrals, and poor patient outcomes related to untimely treatment of severe, symptomatic AS.

### Methods

- The Lead Sonographer at UCLA worked to get the Echo lab IAC accreditation.
- The Lead Sonographer standardized echo report templates among all satellite and main campus labs.
- Our Lead Sonographer makes monthly rounds to satellite clinics and hosts regular “lunch and learn” meetings.
- Our Lead Sonographer sends constant emails to the group and hosts hands-on imaging educational trainings.
- Created a box link that contains all the echo protocols including clinical trial protocols and TAVR protocols as a reference.
- Once accredited, it became mandatory that studies were completed in entirety and reports processed timely and thoroughly.
- UCLA is currently in the process of obtaining new echo mining software which will help to identify even more patients with severe AS.
- UCLA currently implementing an auto EPIC referral order to the Heart Team once an echo report identifies patients with moderate and/or severe AS.

### Results

- Implemented Echo lead education 2023.
- Key Findings for Echo Report included: AVA, AVAi, AV MG, AV Vmax, EF, SVI.
- Increased % of Echo reports that include essential information relevant to the diagnosis of AS from 61% in 2022 to 100% in 2024 (as of September 2024).



L to R: Komal Patel, MD, Richard Shemin, MD, Maria Gultom, NP, Olcay Aksoy, MD, Jeanne Huchting, NP, Radoslav Zinoviev, MD. Missing Murray Kwon, MD

### Conclusion & Peer Suggestions

- Implementing Echo protocols for sonographers and interpreting Cardiologists leads to a more thorough assessment of Aortic Valve hemodynamics.
- Echo lab accreditation holds sonographers and interpreting Cardiologists accountable for timely and thorough reports.
- Echo mining software and automatic EPIC referrals may lead to more timely diagnosis and treatment of severe AS.
- We anticipate that these adjustments to the Echo Lab will lead to a greater number of patients being properly diagnosed with Severe AS within our system.

### Contact Information

**Olcay Aksoy, MD**

*Structural Heart Champion*

**Jeanne Huchting, NP**

*Structural Heart Nurse Practitioner*

[jhuchting@mednet.ucla.edu](mailto:jhuchting@mednet.ucla.edu)

(310) 825-9011